REMARKS

Status Of Application

Claims 1-26 are pending in the application; the status of the claims is as follows:

Claims 1-6, 8, 10-14, 16, 18-23, and 25 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,239,405 to Parrish ("Parrish").

Claims 1, 2, 4-6, 8, 10, 11, 13, 14, 16, 18, 19, 21-23, and 25 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,933,447 to Pasini, III et al. ("Pasini").

Amendments to Specification

The specification has been amended to correct typographical errors. Paragraph 16 was amended in line 15 to change "flair" after "marine" to "flare". Paragraph 21 was amended to insert a "," after "disassociate" in line 12. Paragraph 24 was amended to delete "-" after "fire" in line 3.

Claim Amendments

Claims 1, 7, 9, 10, 15, 16 and 17, have been amended. These changes do not introduce any new matter. Claim 10 and 15 have been broadened in scope, and the amendment is supported by the disclosure, e.g. paragraph 7, lines 1-2. Claims 16 and 17 were amended to correct a typographical error.

New claims 27 and 28 have been added.

Allowable Subject Matter

The objection to claims 7, 9, 15, 24, and 26 as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, is noted with appreciation.

Claims 7 and 9 have been rewritten in independent form, including all of the limitations of the base claim and any intervening claims, as suggested by the Examiner. Claim 15 has been rewritten to include most of the limitations of original claim 10 except the claim has been broadened.

Accordingly, it is respectfully requested that the objection to claims 7, 9 and 15 as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, be reconsidered and withdrawn.

As explained below, original claim 18 does present allowable subject matter and thus claims 24 and 26 have not been amended.

35 U.S.C. § 102(b) Rejection

The rejection of claims 1-6, 8, 10-14, 16, 18-23, and 25 under 35 U.S.C. § 102(b) as being anticipated by the Parrish patent, is respectfully traversed based on the following.

Parrish discloses an underground combustion process for petroleum reservoirs of low permeability. Parrish describes his invention in relation to the recovery of oil. The patent speculates that the principles likewise apply to gasification of coal. (Col. 1, ll. 25-31). Parrish relates to a multi wellbore situation in which there is a production well and an injection well. (Col. 3, ll. 71-75). The process of Parrish is concerned with providing a heated area adjacent to the production well and then to burn the oil adjacent to the injection well to drive oil to the production well. (Col. 2, l. 54- Col. 3, l. 2). Without the prior heating of the production well area, the oil adjacent to the production well will

remain cool and have a viscosity sufficient to prevent flow to the production well even though heat is applied in the injection well area. (Col. 1, l. 68- Col. 2, l. 3).

Parrish does not explain how the principles can be applied to coal gasification. It is believed that Parrish when referring to coal gasification is using the term as commonly used in the art to refer to the burning of coal to produce a dirty combustion gas in a fashion similar to Pasini III and as shown in U.S. Patent 2,593,477. Thus, Parrish would use burning to create a combustion gas to be recovered at the production well. Thus, Parrish, assuming the process would indeed by applicable to a coal formation, requires a production well to receive the oil or gas, and an injection well to support the combustion which serves to lower the viscosity of the oil and drive it to the production well. Thus, Parrish does not anticipate claims in which the production wells, if any, in the formation are sealed.

The Office Action asserts that Parrish discloses, "The air is injected at a pressure equal to or exceeding the fracture pressure." Applicant has carefully reviewed Parrish reference and finds no support for this statement. To the contrary, Parrish specifically teaches not to exceed the fracturing pressure, "The maximum pressure employed should be less than that which would cause the fracturing of the reservoir rock ...") (Col. 5, ll. 57-60).

The Office Action asserts that Parrish discloses that, "The burning coal will later be extinguished". However, this is only a partial statement taken out of context. Parrish stops the reverse burning, but maintains the forward burning. This is clear in that Parrish is continually heating the oil to lower its viscosity so that it will flow to the production well. (see the example).

Applicant respectfully requests that the portions of Parrish alleged to support the above two statements be specifically identified so that Applicant has an opportunity to evaluate the basis of those conclusions and provide any appropriate rebuttal.

The one aspect the present invention relates to fracturing a coal formation by burning. In another aspect, the present invention relates to a method for the recovery of clean gas from a coal formation. (see paragraph 4). Clearly, Parrish is directed to viscosity reduction of in-situ oil and not to fracturing a coal formation. To the extent Parrish may relate to a coal formation it is for a system which produces dirty production gases.

Accordingly, it is respectfully requested that the rejection of claims 1-6, 8, 10-14, 16, 18-23, and 25 under 35 U.S.C. § 102(b) as being anticipated by the Parrish patent, be reconsidered and withdrawn.

35 U.S.C. § 102(b) Rejection

The rejection of claims 1, 2, 4-6, 8, 10, 11, 13, 14, 16, 18, 19, 21-23, and 25 under 35 U.S.C. § 102(b) as being anticipated by the Pasini III patent, is respectfully traversed based on the following.

Pasini III discloses a method for the underground gasification of coal which involves providing wellbores directionally drilled through the major fracture system of a formation, burning coal adjacent to the wellbores to generate a combustion gas, collecting the combustion gas through a production well. (Col. 4, ll. 2-13, Col. 4, l. 66- Col. 5, l. 9, and Col. 5, ll. 10-13). The combustion gas produced is used to fire an electric generator proximate to the production well. (Col. 7, ll. 59-64). Thus, Pasini III is directed to a method in which burning at injection wells is used to produce combustion gases and force those gases out the production well. The method of Pasini III produces dirty combustion gases. (Col. 7, l. 64- Col. 8, l. 11).

The Office Action asserts that Pasini III discloses, "The burning coal will later be extinguished" and "The air is injected at a pressure equal to or exceeding the fracture pressure." Applicant has carefully reviewed Pasini III reference and finds no support for either statement. Quite to the contrary, Applicant notes that Pasini III specifically teaches to maintain control of the burning at the injection wells, apparently to regulate flow to the

production well. (Col. 8, l. 68- Col. 9, l. 10). Applicant respectfully requests that the portions of Pasini III alleged to support such statements are specifically identified so that Applicant has an opportunity to evaluate the basis of those conclusions and provide any appropriate rebuttal.

As explained in the present application in paragraph 3, the gas produced by the burning of coal in situ is of limited value as a transportable gas. Deep coal deposits produce methane which can be transported competitively with natural gas. (see paragraph 12). The present invention is particularly useful in deep coal deposits. (see paragraph 12). In such deep deposits, it is not economical to drill multiple wellbores for injection and production. In addition, conventional methods to open up the formation can only extend a limited distance from the wellbore. (see paragraph 12). Thus, the method of the present invention in one aspect allow for expanding the area that can be fractured beyond that acheiveable by conventional methods and allows the recovery and production of a clean gas. (paragraph 26).

Accordingly, it is respectfully requested that the rejection of claims 1, 2, 4-6, 8, 10, 11, 13, 14, 16, 18, 19, 21-23, and 25 under 35 U.S.C. § 102(b) as being anticipated by the Pasini III patent, be reconsidered and withdrawn.

Neither references relates to a method of fracturing a coal formation, but only to the production of a dirty gas from the coal formation.

CONCLUSION

Wherefore, in view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.

This Amendment increases the number of independent claims by 5 from 3 to 8 and increases the total number of claims by 2 from 26 to 28, but does not present any multiple

dependency claims. Accordingly, a Response Transmittal and Fee Authorization form authorizing the amount of $1,100.00 to be charged to Hitchcock Evert LLP's Credit Card is enclosed herewith. A Credit Card Payment Form is also enclosed herewith. However, if the Response Transmittal and Fee Authorization form is missing, insufficient, or otherwise inadequate, or if a fee, other than the issue fee, is required during the pendency of this application, please charge such fee to Hitchcock Evert LLP's Deposit Account No. 503374.

Any fee required by this document other than the issue fee, and not submitted herewith should be charged to Hitchcock Evert LLP's Deposit Account No. 503374. Any refund should be credited to the same account.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not submitted herewith should be charged to Hitchcock Evert LLP's Deposit Account No. 503374. Any refund should be credited to the same account.

Respectfully submitted,

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